



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,424	01/10/2002	Yasuhiro Yoneda	217771USOPCT	3839
22850	7590	02/22/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			UMEZ ERONINI, LYNETTE T	
			ART UNIT	PAPER NUMBER

1765

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,424

Applicant(s)

YONEDA ET AL.

Examiner

Lynette T. Umez-Eronini

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 9, 11, 14-20, 28, 40, 41 and 43-48 is/are pending in the application.
- 4a) Of the above claim(s) 9, 14-20, 28, 40, 41 and 44-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4, 7, 11 and 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 44-48 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: New claims 44-48 are drawn to a polishing method, unlike the original elected presentation of claims drawn to a polishing composition.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 44-48 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 43 are rejected under 35 U.S.C. 102(b) as anticipated by McCune (US 2,892,796).

McCune discloses an aqueous solution containing phosphated alkyl glyceryl ether (column 4, lines 9-12 wherein the alkyl groups are from 14 carbons to 18 carbons.

The alkyl glyceryl ether phosphate is formed by phosphorylation of the compound having the structure as shown in column 2, lines 3-8).

The aforementioned reads on,

A composition comprising a compound having six or more carbon atoms and a structure in which each of two or more adjacent carbon atoms has a hydroxyl group in a molecule, and water wherein the compound having a structure in which each of two or more adjacent carbon atoms has a hydroxyl group in a molecule is represented by the formula (i):



and water, as specified in **claim 1**; and

a compound having a structure in which each of two or more adjacent carbon atoms has a hydroxyl group in a molecule that is selected from the group consisting of glyceryl ethers, in **claim 43**.

Since McCune illustrates the claimed combination of an alkyl glyceryl and water is known, then using McCune's composition in the same manner as those of the claimed invention would inherently result in a polishing liquid composition for polishing a surface to be polished comprising an insulating layer and a metal, in **claims 1 and 43**.

It is noted that no patentable weight is given to the phrase, "A polishing liquid for polishing a surface to be polished comprising an insulating layer and a metal layer.", in claim 1. Likewise the intended use of composition is not patentably significant. *In re Albertson* 141 USPQ 730 (CCPA 1964); *In re Heck* 114 USPQ 161 (CCPA 1957). A

product (composition) is defined by what it is or comprises and not by what it does or its function.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2-4, 7, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCune (S '796) applied to claim 1 above, and further in view of Kaufman (US 6,063,306)

McCune differs in failing to teach wherein the organic acid is an etching agent, **in claims 2 and 3**; further comprising an etching agent comprising an inorganic acid, **in claim 4**, and further comprising an oxidizing agent and abrasive, **in claims 7 and 11**.

Kaufman teaches, a chemical mechanical polishing slurry that comprises an abrasive (column 4, lines 47-51 and column 5, lines 55-67), oxidizing agents (column 4, lines 3-6), organic acid (column 6, lines 1-14), inorganic acid and other optional ingredients (column 6, lines 29-36) and the CMP slurry may be produced by mixing the oxidizing agent and any optional additives into deionized wafer along with a concentrated dispersion of a metal oxide abrasive (column 7, lines 55-64 and column 6, lines 15-19).

Since Kaufman illustrates a polishing composition comprising components such as, organic acid, inorganic acid, oxidizing agent, and an abrasive are known, then it would have been obvious to one having ordinary skill in the art at the time of the invention to modify McCune by employing any of the components as taught in the Kaufman reference that would effectively accomplish the disclosed composition because it has been held that there is no invention where the difference in proportions is not critical and was ascertained by routine experimentation because the determination of workable ranges is not considered inventive. See *In re Swain and Adams*, 70 USPQ 412 (CPA 1946).

Response to Arguments

7. Applicant's arguments with respect to claims 1-4, 7, 9, 11, 14-20, 40-41, and 43-48 have been considered but are moot in view of the new ground(s) of rejection because the formerly applied reference fail to disclose "a polishing liquid composition . .

. comprising a compound having --six or more carbon atoms-- a structure . . .” as recited in (Currently Amended) Claim 1.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynette T. Umez-Eronini whose telephone number is 571-272-1470. The examiner is normally unavailable on the First Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Art Unit: 1765

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 1765

ltue

February 17, 2006



SHAMIM AHMED
PRIMARY EXAMINER